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Docket 46423-6

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re:

**Applicant: SCHMUTZ, Sheila Marie**

Group Art Unit: 1634

**Serial No.: 10/565,278**

Examiner: Salmon, Katherine D

Filed: July 20, 2004

For: "IMPROVING PRODUCTION CHARACTERISTICS OF CATTLE"


Honourable Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
U.S.A.

**Sir:**

## INFORMATION DISCLOSURE STATEMENT

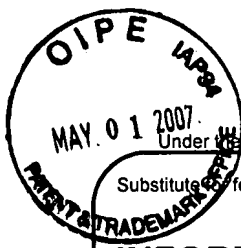
In accordance with 37 C.F.R. § 1.97 and 1.98, Applicant herewith submits on the attached form 1449/PTO certain references and other information, which the Patent and Trademark Office may wish to consider in examining the above-identified application. Copies of all references listed are provided herewith. It is respectfully requested that the information be considered by the examiner and made of record in the present application.

Respectfully submitted,

  
Susan L. Rancourt  
Registration No. 56,016

**HEENAN BLAIKIE LLP**  
P.O. Box 185, Suite 2600  
200 Bay Street, South Tower  
Toronto, Ontario  
CANADA, M5J 2J4  
(416) 643-6813

Date: April 30, 2007



Substitute form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/565,278
Filing Date	July 20, 2004
First Named Inventor	SCHMUTZ, Sheila Marie
Art Unit	1655
Examiner Name	TBA
Attorney Docket Number	046423-0006US

Sheet 1 of 2

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Arnarger V., M. Nguyen, A.S. Van Laere, M. Braunschweig, C. Nezer, M. Georges, and L. Andersson. 2002. Comparative sequence analysis of the WS-IGF2- H19 gene cluster in pigs. Mamm Genome 13(7):388-98.	
		<del>Canadian Cottonseed Association Oiling Experiment 2003</del>	
		De Chiara, T.M., Efstratiadis, A. and Robertson, E.J. 1990. A growth-deficiency phenotype in heterozygous mice carrying an insulin-like growth factor II gene disrupted by targeting. Nature 345: 78-82	
		De Chiara, T.M., Robertson, E.J. and Efstratiadis, A. 1991. Parental imprinting of the mouse insulin-like growth factor two gene. Cell 64: 849-859.	
		Giannoukakis, N., Deal, C. Paquette, J. Goodyer, C.G. and Polychronakos, C. 1993. Paternal genomic imprinting of the human IGF2 gene. Nat. Genetics. 4: 98-101.	
		Goodall, J.J. 2002. Undergraduate thesis title: Characterization of the Insulin-like growth factor II gene in cattle.	
		Goodall, J.J. and Schmutz, S.M. 2003. Linkage Mapping of IGF2 on Cattle Chromosome 29. Anim. Genet. 34 (4): 313.	
		Holtuizen P., Van der Lee F.M., Ikejiri K., Yamamoto M., and J.S. Sussenbach. 1990. Identification and initial characterization of a fourth leader exon and promoter of the human IGF2 gene. Biochim. Biophys. Acta 1087:341-3.	
		Jeon, J.T., Carlborg, O. Tornsten, A. Giuffra, E. Amarger, V. Chardon, P. Andersson Euklund, L. Andersson, K. Hannsson, I. Lundstrom, K. and Andersson, L. 1999. A paternally expressed QTL affecting skeletal and cardiac muscle mass in pigs maps to the IGF2 locus. Nat. Genetics. 21: 157-158.	
		Kalscheuer, V.M., Mariman, E.C. Schepens, M.T. Rehder, H. and Ropers, H.H. 1993. The insulin-like growth factor type-2 receptor gene is imprinted in the mouse but not in humans. Nat. Genetics. 5: 74-78.	

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
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		Filing Date	July 20, 2004
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Sheet 2	of 2	Attorney Docket Number 046423-0006US	

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		McLaren, R.J. and Montgomery, G.W. 1999. Genomic imprinting of the insulin-like growth factors 2 gene in sheep. Mamm. Genome 10: 588-591.	
		Nezer, C., Moreau, L. Brouwers, B. Coppieters, W. Detilleux, J. Hanset, R. Karim, L. Kvasz, A. Leroy, P. and Georges, M. 1999. An imprinted QTL with major effect on muscle mass and fat deposition maps to the IGF2 locus in pigs. Nat. Genetics. 21: 155-156.	
		Ohlsson, R., Nystrom, A. Pfeifer-Ohlsson, S. Tohonen, V. Hedborg, F. Schofield, P. Elam, F. and Ekstrom, T.J. 1993. IGF2 is parentally imprinted during human embryogenesis and in the Beckwith-Wiedemann syndrome. Nat. Genetics. 4: 94-97.	
		Ohlsen S.M., Lugenbeel K.A., and E.A. Wong. 1994. Characterization of the Linked Insulin and IGF2 genes. DNA and Cell Bio. 13:377-88.	
		De Pagter-Holthuisen P., Jansen M., Van Schaik F.M.A., Van der Kammen R., Oosterwijk C., Van de Brande J. L. and J.S. Sussenbach. 1987. The human IGF2 gene contains two development-specific promoters. FEBS Lett. 214:259-64.	
		De Pagter-Holthuisen P., Jansen M., Van der Karmen R.A., Van Schaik F.M.A. and J.S. Sussenbach. 1988. Differential expression of the human IGF2 gene. Characterization of the IGF2 mRNAs and an mRNA encoding a putative IGF2 associated protein. Biochim.Biophys. Acta 950:282-95.	
		Rotwein, P. and Hall, L.J. 1990. Evolution of insulin-like growth factor 2: Characterization of the mouse IGF2 gene and identification of two pseudo-exons. DNA. Cell Biol. 9: 725-735.	
		Sasaki, H., Jones, P.A. Chaillet, J.R. Ferguson-Smith, A.C. Barton, S.C. Reik, W. and Surani, M.A. 1992. Parental imprinting: potentially active chromatin of the repressed maternal allele of the mouse insulin-like growth factor II gene. Genes and Development. 6: 1848-1856.	
		Schmutz S.M., Moker, J.S. Gallager, Jr. D.S. Kappers, S.M. and Womack, J.E. 1996. In situ hybridization mapping of LDHA and IGF2 to cattle chromosome 29. Mamm. Genome. 7:473.	
		Gardall, J.J. and S.M. Schmutz. 2007. IGF2 gene characterization and association with rib eye area in beef cattle. Anim. Genet. 38:154-161.	

Examiner Signature	Date Considered
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